AMENDMENTS TO THE CLAIMS

A complete listing of the claims is provided hereinafter.

Please amend the claims as follows:

Claims 1-2 (canceled)

Claim 3 (currently amended):   The method of claim [[1]] 25, wherein each one of the cells of the cell framework is substantially the same size as a sample of well data.

Claim 4 (currently amended):   The method of claim [[1]] 25, wherein each one of the cells of the cell framework is substantially the same size as a sample of core data.

Claim 5 (currently amended):   The method of claim [[1]] 25, wherein each one of the cells of the cell framework is substantially the same size as a sample of log data.

Claim 6 (currently amended):   The method of claim [[1]] 25, further comprising identifying some or all of the cells of the cell framework as net or non-net.

Claim 7 (currently amended):   The method of claim [[1]] 25, further comprising identifying some or all of the cells of the cell framework as sand or shale.

Claim 8 (currently amended):   The method of claim [[1]] 25, further comprising populating some or all of the cells of the cell framework with net and non-net values.

Claim 9 (currently amended):   The method of claim [[1]] 25, further comprising receiving one or more estimated rock-type fraction values of the reservoir framework.

Claim 10 (previously presented):   The method of claim 9, further comprising identifying some or all of the cells of the cell framework as net or non-net according to the estimated rock-type fraction values of the reservoir framework.

Claim 11 (previously presented)   The method of claim 9, further comprising populating some or all of the cells of the cell framework with net and non-net values according to the estimated rock-type fraction values of the first reservoir framework.

Claim 12 (canceled)

Claim 13 (currently amended):   The method of claim [[1]] 25, wherein the one or more reservoir property values comprise one or more porosity values.

Claim 14 (currently amended):   The method of claim [[1]] 25, wherein the one or more reservoir property values comprise one or more permeability values.

Claim 15 (currently amended):   The method of claim [[1]] 25, wherein the one or more reservoir property values comprise one or more water saturation values.

Claims 16-19 (canceled)

Claim 20 (original):   The method of claim [[1]] 25, wherein the reservoir model is a flow simulation model.

Claim 21 (original):   The method of claim [[1]] 25, wherein the reservoir model is a geologic model.

Claims 22-24 (canceled)

Claim 25 (Currently amended):   A method for generating a hydrocarbon reservoir model, comprising:

      providing a reservoir framework having a plurality of three-dimensional cells;

      building a cell framework having a plurality of cells, wherein the cell framework comprises two or more cells of the reservoir framework;

      selecting a net-to-gross value from a set of estimated net-to-gross values;

      populating the cells of the cell framework with rock-type values that correspond to the selected net-to-gross value;

      populating the cells of the cell framework with one or more reservoir property values to generate a reservoir cell model;

      extracting one or more cell samples from the cell model, wherein each cell sample is substantially the same size as one cell of the first framework;

      performing, on a computer, a flow simulation on the cell sample to generate one or more effective reservoir property values;

      ~~calculating, on a computer, a variability in effective reservoir property values;~~

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extracting other cell samples from the cell model when a user-specified number of cell samples has not been sampled, and performing on a computer a flow simulation on said other cell samples, and further calculating [[the]] a variability in effective reservoir property values generated from said other cell samples;

selecting another net-to-gross value from the set of estimated net-to-gross values when a user-specified number of cell samples has been sampled, and repeating, using said selected another net-to-gross value, said steps of

populating the cells of the cell framework with rock-type values,

populating the cells of the cell framework with one or more reservoir property values,

extracting one or more cell samples from the cell model,

performing, on a computer, a flow simulation, and

extracting other cell samples from the cell model; and

outputting the effective reservoir property values when a change in the variability of effective reservoir property values is less than a predetermined amount.

Claims 26-53 (canceled)

Claim 54 (Original):   The method of claim 9, wherein the rock-type fraction values are net-to-gross values.

Claim 55 (Original):   The method of claim 10, wherein the rock-type fraction values are net-to-gross values.

Claim 56 (Original):   The method of claim 11, wherein the rock-type fraction values are net-to-gross values.